WHAT IS CLAIMED IS:

1. A color splitting/combining optical system comprising:

a first optical member which splits light from a light source into a first color light component and a second color light component, the first optical member directing the first color light component to a first image-forming element;

a second optical member which has a polarization splitting surface and splits the second color light component into a third color light component and a fourth color light component by using the polarization splitting surface, the second optical member directing the third color light component to a second image-forming element and directing the fourth color light component to a third image-forming element, and furthermore, the second optical member combining the third color light component from the second image-forming element with the fourth color light component from the third image-forming element by using the polarization splitting surface;

a third optical member which combines the third and fourth color light components, which are combined by the second optical member, with the first color light component from the first image-forming element;

a first color-selective wave plate disposed between the

first optical member and the second optical member, which converts the polarization direction of a light component in a first wavelength region by 90 degrees; and

a second color-selective wave plate disposed between the second optical member and the third optical member, which converts the polarization direction of a light component in a second wavelength region by 90 degrees;

wherein the following condition is satisfied:

$\lambda 1 \neq \lambda 2$

where $\lambda 1$ represents a wavelength in which the ratio of the light component having the polarization direction converted by 90 degrees by the first color-selective wave plate becomes substantially 50%, and $\lambda 2$ represents a wavelength in which the ratio of the light component having the polarization direction converted by 90 degrees by the second color-selective wave plate becomes substantially 50%.

2. The color splitting/combining optical system according to Claim 1, wherein a light component, in a wavelength region between the $\lambda 1$ and the $\lambda 2$, of light incident on the polarization splitting surface includes more S-polarized light than P-polarized light.

3. The color splitting/combining optical system according to Claim 1, wherein substantially 80% or more of a light

component, in a wavelength region between the $\lambda 1$ and the $\lambda 2$, of light incident on the polarization splitting surface is S-polarized light.

4. The color splitting/combining optical system according to Claim 1, wherein substantially 95% or more of a light component, in a wavelength region between the $\lambda 1$ and the $\lambda 2$, of light incident on the polarization splitting surface is S-polarized light.

5. The color splitting/combining optical system according to Claim 1, wherein a light component, in a wavelength region between the $\lambda 1$ and the $\lambda 2$, of light incident on the polarization splitting surface is substantially only S-polarized light.

6. The color splitting/combining optical system according to Claim 1, further comprising:

a color filter provided between the first optical member and the first color-selective wave plate, which substantially continuously has a first optical transmission band, an optical non-transmission band and a second optical transmission band from a short wavelength side to a long wavelength side, and satisfies the following condition:

$\lambda c1 < \lambda 0 < \lambda c2$,

where $\lambda c1$ represents a wavelength in which the transmittance in a fist transition region from the first optical transmission band to the optical non-transmission band becomes substantially 50%, $\lambda c2$ represents a wavelength in which the transmittance in a second transition region from the optical non-transmission band to the second optical transmission band becomes substantially 50%, and $\lambda 0$ represents $(\lambda 1+\lambda 2)/2$.

7. An image projection apparatus comprising:

a light source;

a first, a second and a third image-forming element;

a color splitting/combining optical system according to Claim 1; and

a projection optical system which projects light combined by the color splitting/combining optical system.

8. The image projection apparatus according to Claim 7, wherein the first, second and third image-forming elements are reflection type image-forming elements.

9. The image projection apparatus according to Claim 7, wherein the first, second and third image-forming elements are reflection type liquid crystal elements.

10. A color splitting/combining optical system comprising:

a first optical member which splits light from a light source into a first color light component and a second color light component, the first optical member directing the first color light component to a first image-forming element;

a second optical member which has a polarization splitting surface and splits the second color light component into a third color light component and a fourth color light component by using the polarization splitting surface, the second optical member directing the third color light component to a second image-forming element and directing the fourth color light component to a third image-forming element, and furthermore, the second optical member combining the third color light component from the second image-forming element with the fourth color light component from the third image-forming element by using the polarization splitting surface;

a third optical member which combines the third and fourth color light components, which are combined by the second optical member, with the first color light component from the first image-forming element;

a first color-selective wave plate disposed between the first optical member and the second optical member, which converts the polarization direction of a light component in

a first wavelength region by 90 degrees;

a second color-selective wave plate disposed between the second optical member and the third optical member, which converts the polarization direction of a light component in a second wavelength region by 90 degrees; and

a color filter provided between the first optical member and the first color-selective wave plate, which substantially continuously has a first optical transmission band, an optical non-transmission band and a second optical transmission band from a short wavelength side to a long wavelength side,

wherein the following condition is satisfied:

$\lambda c1 < \lambda 0 < \lambda c2$,

where $\lambda c1$ represents a wavelength in which the transmittance in a first transition region from the first optical transmission band to the optical non-transmission band becomes substantially 50%, $\lambda c2$ represents a wavelength in which the transmittance in a second transition region from the optical non-transmission band to the second optical transmission band becomes substantially 50%, and $\lambda 0$ represents $(\lambda 1+\lambda 2)/2$; and $\lambda 1$ represents a wavelength in which the ratio of the light component having the polarization direction converted by 90 degrees by the first color-selective wave plate becomes substantially 50%, and $\lambda 2$ represents a wavelength in which the ratio of the light

component having the polarization direction converted by 90 degrees by the second color-selective wave plate becomes substantially 50%.

11. An image projection apparatus comprising:

a light source;

a first, a second and a third image-forming element;

a color splitting/combining optical system according to Claim 10; and

a projection optical system which projects light combined by the color splitting/combining optical system.

12. The image projection apparatus according to Claim 11, wherein

the first, second and third image-forming elements are reflection type image-forming elements.

13. The image projection apparatus according to Claim 11, wherein

the first, second and third image-forming elements are reflection type liquid crystal elements.

14. A color splitting/combining optical system comprising:

a first color splitting member which splits light from a light source into a first color light component and a

second color light component, the first color splitting member directing the first color light component to a first image-forming element;

a second color splitting member which has a first polarization splitting surface and splits the second color light component into a third color light component and a fourth color light component by using the first polarization splitting surface, the second color splitting member directing the third color light component to a second image-forming element and directing the fourth color light component to a third image-forming element;

a first color combining member which has a second polarization splitting surface and combines the third color light component from the second image-forming element with the fourth color light component from the third image-forming element by using the second polarization splitting surface;

a second color combining member which combines the third and fourth color light components, which are combined by the first color combining member, with the first color light component from the first image-forming element;

a first color-selective wave plate disposed between the first color splitting member and the second color splitting member, which converts the polarization direction of a light component in a first wavelength region by 90 degrees; and

a second color-selective wave plate disposed between the first color combining member and the second color combining member, which converts the polarization direction of a light component in a second wavelength region,

wherein the following condition is satisfied:

$\lambda 1 \neq \lambda 2$

where $\lambda 1$ represents a wavelength in which the ratio of the light component having the polarization direction converted by 90 degrees by the first color-selective wave plate becomes substantially 50%, and $\lambda 2$ represents a wavelength in which the ratio of the light component having the polarization direction converted by 90 degrees by the second color-selective wave plate becomes substantially 50%.

15. A color splitting/combining optical system comprising:

a first color splitting member which splits light from a light source into a first color light component and a second color light component, the first color splitting member directing the first color light component to a first image-forming element;

a second color splitting member which has a first polarization splitting surface and splits the second color light component into a third color light component and a fourth color light component by using the first polarization splitting surface, the second color splitting member

directing the third color light component to a second image-forming element and directing the fourth color light component to a third image-forming element;

a first color combining member which has a second polarization splitting surface and combines the third color light component from the second image-forming element with the fourth color light component from the third image-forming element by using the second polarization splitting surface;

a second color combining member which combines the third and fourth color light components, which are combined by the first color combining member, with the first color light component from the first image-forming element;

a first color-selective wave plate disposed between the first color splitting member and the second color splitting member, which converts the polarization direction of a light component in a first wavelength region by 90 degrees;

a second color-selective wave plate disposed between the first color combining member and the second color combining member, which converts the polarization direction of a light component in a second wavelength region by 90 degrees; and

a color filter provided between the first color-splitting member and the first color-selective wave plate, which substantially continuously has a first optical

transmission band, an optical non-transmission band and a second optical transmission band from a short wavelength side to a long wavelength side,

wherein the following condition is satisfied:

$\lambda c1 < \lambda 0 < \lambda c2$,

where $\lambda c1$ represents a wavelength in which the transmittance in a first transition region from the first optical transmission band to the optical non-transmission band becomes substantially 50%, $\lambda c2$ represents a wavelength in which the transmittance in a second transition region from the optical non-transmission band to the second optical transmission band becomes substantially 50%, and $\lambda 0$ represents $(\lambda 1+\lambda 2)/2$; and $\lambda 1$ represents a wavelength in which the ratio of the light component having the polarization direction converted by 90 degrees by the first color-selective wave plate becomes substantially 50%, and $\lambda 2$ represents a wavelength in which the ratio of the light component having the polarization direction converted by 90 degrees by the second color-selective wave plate becomes substantially 50%.

16. An image projection apparatus comprising:

a light source;

a first, a second and a third image-forming element;

a color splitting/combining optical system according to

Claim 14; and

a projection optical system which projects light combined by the color splitting/combining optical system.

17. An image projection apparatus comprising:

a light source;

a first, a second and a third image-forming element;

a color splitting/combining optical system according to Claim 15; and

a projection optical system which projects light combined by the color splitting/combining optical system.